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Summit County, Colorado

Request for Information

for

**Partnership for Deployment of
Wireless Broadband to Three Underserved Areas in Summit
County**

Issued: November 21, 2016

Table of Contents

I.	Introduction	1
II.	The County's Vision.....	2
III.	Background: Summit County	4
	Table 1: Summit County Population Centers.....	4
	Table 2: Poverty Indicators	7
	Table 3: Summit County Revenue (FY 2010-2014)	8
IV.	The Underserved Areas	8
	Lower Blue	10
	Montezuma.....	11
	Summit Cove	12
V.	County Contributions and Assets.....	13
VI.	Potential Technologies.....	14
VII.	RFI Response Requirements	14
VIII.	Response Process.....	16
	Letter of Intent.....	16
	Questions	16
	Response Deadline.....	16
	Summary of RFI Process Deadlines	16
IX.	Personal Presentations	17
X.	County Rights Reserved	17

I. Introduction

Summit County, Colorado (“County”) issues this Request for Information (RFI) to convey its interest in partnering with a motivated, high-caliber partner to make wireless broadband service available in three underserved areas of Summit County over privately or publicly-constructed infrastructure. The County seeks proposed approaches from private sector partners who seek to provide this coverage and envision a long-term relationship with the County.

Summit County is a beautiful and exciting place to live, work, and visit. Home to ski resorts, golf courses, and reservoirs, the County is a thriving tourist center in Colorado. With wide open spaces, historic town centers, and numerous festivals and events, Summit County has something for everyone. County leadership is committed to ensuring that the County continues to prosper and evolve as the global economy shifts, and the need for ultra-high-speed broadband access becomes increasingly evident.

The County seeks a partner who will collaborate to provide wireless broadband in three underserved areas of Summit County (the Lower Blue River Valley north of Silverthorne - “Lower Blue”, Montezuma, and the Summit Cove neighborhood., collectively “the Underserved Areas”). In return, we pledge our support and facilitation of any necessary processes and potential grant opportunities, access to community assets, commitment to providing right-of-way (ROW) access and assistance with permitting, and any other advantage we may be able to bring to the partnership. In addition, the County is willing to consider a contribution to the capital costs of deploying service in the Underserved Areas, or constructing at its own costs some of the key infrastructure (such as towers) necessary to serve the Underserved Areas.

Given the deficiency in service in the Underserved Areas, deployment in these locations will enhance the broadband connectivity of the County’s residents, visitors, and businesses by expanding the range and quality of available broadband and data transport services.

The County has initiated this RFI to identify one or more potential partners to enable or directly provide high-capacity wireless broadband to end users within the Lower Blue, Montezuma, and Summit Cove. Responses to this RFI should state how the respondent’s approach will result in a financially sustainable business model that furthers the County’s goals of ensuring that residents and visitors to these areas have access to affordable, market-leading broadband services that can easily and inexpensively scale to provide higher-speed services as demand for bandwidth increases.

Of note, the County is concurrently releasing an RFI for a *Partnership for Deployment of Fiber-to-the-Premises in Summit County, Colorado* (FTTP RFI). Although the FTTP RFI is targeted for fiber infrastructure, the County is very interested in solutions that may fulfill the needs these underserved areas while aligning with the goals of the FTTP RFI.

The County seeks input from potential partners regarding the terms and conditions under which they would participate in such a project. We seek partners who will consider a variety of business models that share technological and operational responsibilities and financial risk between the partners and the County in innovative ways.

We encourage respondents to share their expertise, which may be used to shape the direction and form of the network. Respondents may work together to respond to this RFI. The County is open to creative solutions that will maximize investment while providing reliable and high-quality services to meet its citizens' needs.

We welcome the responses of all prospective partners, including incumbent service providers, as well as competitive providers, nonprofit organizations, public cooperatives, and entities that are not traditional Internet service providers (ISP) but are interested in acting as a partner in offering service under innovative business models. Nontraditional providers may respond as part of a partnership with an ISP, or may provide separate responses outlining their approaches.

The County will review responses based on the respondents' experience, how well the responses address the County's objectives, how the proposed business model balances and shares risks and rewards, and other factors. The County may provide more detailed information on available assets to one or more respondents, and ask those respondents to refine their responses.

Following the evaluation of responses, the County may begin negotiations with the preferred RFI respondent(s), issue a more detailed Request for Proposal (RFP) relating to the County-initiated project, issue an RFP to selected RFI respondents, cancel or delay plans to deploy an FTTP network, or choose another direction that is deemed in the community's best interest.

Responding to the RFI is not a guarantee of a contract award. Further, there is no guarantee an RFP will be developed as a result of this RFI. The County reserves the right to withdraw the RFI or any subsequent RFP, or to decline to award a contract.

II. The County's Vision

We envision world-class community communications infrastructure for Summit County's businesses, visitors, and residents, for the 21st century and beyond. Broadband is critical infrastructure—just like roads, water, sewer, and electricity. Every resident and business in the Lower Blue, Montezuma, and Summit Cove should have the opportunity to connect through wireless broadband. Providing equal and affordable access to communications infrastructure and service is essential to promoting equal opportunity in business, education, employment, healthcare, and all other aspects of day-to-day life.

The County is a regional hub for tourism, with low unemployment, a growing population, and a flourishing economy. The County is dedicated to providing wireless broadband in three

underserved areas of the County that will allow tourists to experience uninterrupted connectivity when they travel from Denver and elsewhere to the region. Doing so will advance the County's standing in the regional and global economy as a travel destination.

There is currently limited access to wireless broadband in the Lower Blue, Montezuma, and Summit Cove. Many Colorado Front Range residents from Colorado Springs to Fort Collins have second homes in Summit County and other mountain communities. These homeowners are accustomed to somewhat ubiquitous cellular coverage and higher Internet speeds in their primary residences and localities. Lesser broadband availability and performance is thus all the more frustrating while in Summit County. The County (and towns within) bear the brunt of these frustrations and are compelled to seek solutions.

Broadband is an important driver of lowering business costs, attracting and retaining highly skilled residents, and creating sustainable new jobs in an entrepreneurial economy based on innovation and creativity.

We intend to empower our citizens and local businesses to be network economy producers—not just consumers of network information and data services. Further, we intend to provide our stakeholders with the broadband capacity they need to compete successfully in the global marketplace.

Summit County's broadband initiative will be shaped by the community's values. The County seeks a partner(s) ("Partner") to operate fast, affordable wireless broadband Internet and data services to meet the County's broadband goals. County officials have prioritized pursuing the deployment of a mobile wireless network or enhancement to an existing network that will provide adequate bandwidth for visitors and residents in the three underserved areas of the County.

The County will consider a range of construction, operation, and ownership models for the wireless network. The County and selected Partner(s) will collaboratively determine the most mutually beneficial partnership structure, which may include cost-sharing, infrastructure leasing, and profit-sharing arrangements. The County is prepared to consider various business models, including one in which the County makes a financial investment to address the need for wireless broadband in the Underserved Areas.

The County will also consider any combination of these models as well as alternative suggestions proposed by respondents.

III. Background: Summit County

Conveniently located on the western side of the Continental Divide in the heart of Colorado's Rocky Mountains, Summit County ("County") is a thriving tourist destination. The County is bounded by the Eisenhower Tunnel on the east, Vail Pass on the west, Hoosier Pass on the south and the Green Mountain Reservoir on the North. It is located only 75 miles from Denver, making it a convenient and popular year-round recreation area both for Coloradans and for tourists arriving from around the world via Denver International Airport.

The County boasts a climate that is ideally suited to tourism. Snowfall varies across the County, from more than 30 feet annually in the Arapahoe Basin to "only" 10 feet in Silverthorne. At 9,000 feet above sea level, humidity levels are very low. As a result, the lowest temperatures are fairly mild, the hottest days are not oppressive, and the County experiences 300 days of sunshine each year.

Summit County encompasses 608 square land miles and was home to approximately 30,000 people in 2015.¹ Roughly half (47%) of the population is concentrated in a handful of picturesque mountain towns: Breckenridge, Blue River, Dillon, Frisco, Montezuma and Silverthorne. The remaining 53 percent of the population is spread throughout the unincorporated areas (i.e., outside of the town boundaries) in the County.² (See Table 1) As a result, Summit County's population density is roughly half that of the United States with 46 people residing per square mile, compared to 87 people nationwide.³

Table 1: Summit County Population Centers⁴

Area	1970	1980	1990	2000	2010	2014
Incorporated Areas						
Breckenridge	548	818	1,285	2,408	4,540	4,887

¹ United States Census Bureau, Quick Facts, Summit County, CO, <https://www.census.gov/quickfacts/table/PST045215/08117,00>

² Summit County, Colorado, "Summit County Permanent Resident Population," <http://www.co.summit.co.us/517/Permanent-Resident-Population> (visited Oct. 5, 2016).

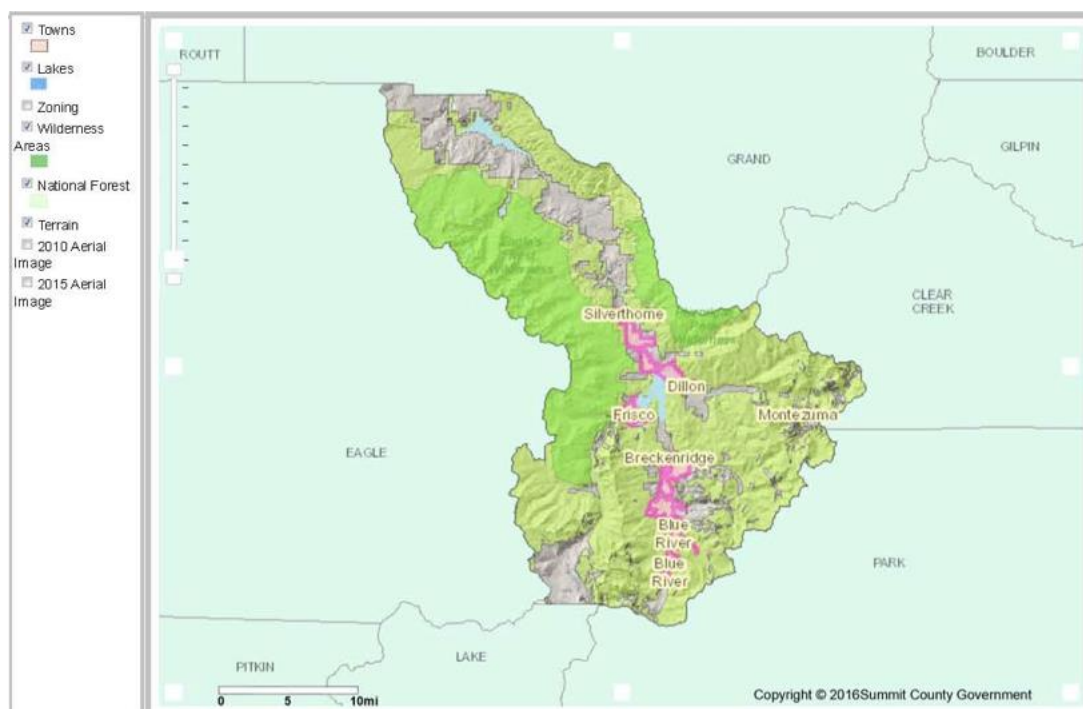
³ United States Census Bureau, Quick Facts, Summit County, CO, <https://www.census.gov/quickfacts/table/PST045215/08117,00>

⁴ Summit County, Colorado, "Summit County Permanent Resident Population," <http://www.co.summit.co.us/517/Permanent-Resident-Population> (visited Oct. 5, 2016).

Blue River	8	230	440	685	849	887
Dillon	182	337	553	802	904	938
Frisco	471	1,221	1,601	2,443	2,683	2,827
Montezuma	N/A	N/A	60	42	65	68
Silverthorne	400	989	1,768	3,196	3,887	4,116
Subtotal	1,609	3,595	5,707	9,576	12,928	13,723
Unincorporated Areas						
Lower Blue Basin			2,533	4,592	3,672	3,820
Snake River Basin			1,765	4,187	6,726	6,998
Ten Mile Basin			532	837	1,292	1,344
Upper Blue Basin			2,344	4,356	3,376	3,513
Subtotal	1,056	5,253	7,174	13,972	15,066	15,676
Summit County Total	2,665	8,848	12,881	23,548	27,994	29,399

The County population is centered on a handful of population centers located along major waterways (the Blue River, Ten Mile Creek, and the Snake River) and adjacent to major road corridors (e.g. near Interstate 70). Outside of these population centers, the vast majority (80%) of the land mass is public land. Public lands within Summit County include the White River National Forest, the Eagles Nest Wilderness area, and additional lands owned by the United States Forest Service, the Bureau of Land Management, the State of Colorado, and the Denver Water Board. (Figure 1)

Figure 1: Land Ownership in Summit County



The County's population has experienced consistent growth, with nearly a 25-percent increase in full-time residents since 2000. Of the incorporated population centers, the County seat, Breckenridge, is the largest and has experienced the most dramatic growth, more than doubling in size during that same period.⁵ From 1970 to 1980, Summit County was the fastest growing county in the United States (growing 232% in a decade). Although growth has since slowed (falling to 45.6 percent from 1980 to 1990, 82.8 percent between 1990 and 2000, and 18.9 percent from 2000 to 2010), it continues to draw new residents and is growing at a rate that surpasses that of the state as a whole. In many years, Summit County has been among the top ten fastest growing counties in the state.⁶

Many of the incorporated towns are preserved as National Historic Districts, featuring unique architecture, shopping and dining experiences. The towns cater to tourists, and offer a wide variety of festivals, markets and lodging options for romantic getaways, family vacations, and weekend adventures. The County's public lands also offer abundant outdoor recreation activities, including hiking, biking, fishing, backpacking and kayaking, skiing, snowmobiling, and ice climbing. Notably, the County includes four major ski resorts (Breckenridge, Keystone, Copper Mountain and Arapahoe Basin) and two reservoirs (Lake Dillon and Green Mountain Reservoir), which draw visitors from across the state and around the world. Each of the ski resorts (with the exception of

⁵ Summit County, Colorado, "Summit County Permanent Resident Population," <http://www.co.summit.co.us/517/Permanent-Resident-Population> (visited Oct. 5, 2016).

⁶ Summit County, Colorado, "Summit County Population History, 1970-2010," <http://www.co.summit.co.us/518/Population-History> (visited Oct. 5, 2016).

Arapahoe Basin) offers an array of amenities for tourists, from hotels and condominiums to retail stores and restaurants. Breckenridge Resort features the highest chairlift in North America. The County is also home to five golf courses, two recreation centers, many miles of hiking and biking trails, award-winning fly-fishing on the Blue River, and boating opportunities on the reservoirs.⁷

Statewide, Colorado's ski resorts saw 12.6-million visitors in the 2013-2014 season, increasing 10 percent from the previous year. This trend was reflected at the four Summit County resorts, which increased the fees paid to the US Forest Service (because of increased visitation) by 56 percent in 2013 and another 21.2 percent in 2014.⁸

Owing in part to the booming tourism sector, unemployment levels in Summit County are among the lowest in the nation. Unemployment has steadily declined since 2011 from a high of 7 percent in 2012, to 5.7 percent in 2013, to 2.1 percent in August 2016.⁹ Current unemployment rates are far below statewide (3.3%) and national (5.5%) levels.¹⁰ The County likewise boasts a flourishing economy, with median and per capita household income substantially higher than the rest of the country. (Table 2)

Table 2: Poverty Indicators¹¹

	Summit County	United States
Median Household Income	\$64,521	\$53,482
Per Capita Income (2010-14)	\$34,842	\$28,555
Persons in Poverty, percent	9.7%	13.5%

Not surprisingly, the County's dominant industry is recreation-based tourism. Statewide, roughly one-fourth of all earnings in resort counties in Colorado are generated by overnight travel. In Summit County alone, travel spending generated \$700.1 million and 6,810 jobs in 2013. The

⁷ Office of the County Assessor, "Analysis of Summit County 2015 Economic Activity for 2015 Reappraisal," <http://www.co.summit.co.us/DocumentCenter/Home/View/214>

Office of the County Assessor, "Analysis of Summit County 2015 Economic Activity for 2015 Reappraisal," at 3, <http://www.co.summit.co.us/DocumentCenter/Home/View/214>

⁹ Office of the County Assessor, "Analysis of Summit County 2015 Economic Activity for 2015 Reappraisal," <http://www.co.summit.co.us/DocumentCenter/Home/View/214>; HomeFacts, "Summit County, CO Unemployment Rate Report," <http://www.homefacts.com/unemployment/Colorado/Summit-County.html>

¹⁰ HomeFacts, "Summit County, CO Unemployment Rate Report," <http://www.homefacts.com/unemployment/Colorado/Summit-County.html>

¹¹ United States Census Bureau, Quick Facts, Summit County, CO, <https://www.census.gov/quickfacts/table/PST045215/08117,00>

County has exhibited steady growth in travel spending, employee earnings, jobs, and tax receipts from travel-generated purchases improved from 2011 to 2012 and again in 2013 figures. (Table 3)

Table 3: Summit County Revenue (FY 2010-2014)¹²

Colorado Department of Revenue Sales Tax Collected & Related Statistics for Summit County by Fiscal Year				
	Gross Sales	Retail Sales	Taxable Sales	Net Sales Tax
FY 2010	\$ 1,602,424,165	\$ 1,290,167,367	\$ 788,667,909	\$ 22,869,637
FY 2011	\$ 1,735,232,712	\$ 1,395,668,073	\$ 835,915,842	\$ 24,245,261
FY 2012	\$ 1,758,986,000	\$ 1,410,941,000	\$ 872,630,000	\$ 24,780,000
FY 2013	\$1,825,019,460	\$1,492,016,537	\$ 941,737,326	\$26,781,212
FY 2014	\$1,959,495,932	\$1,622,557,690	\$1,038,914,313	\$29,523,434

Owing in part to the thriving economy, the County is experiencing significant growth in the construction of second homes, with 67 percent of all 2015 construction provided for out-of-County persons or entities. The County Assessor has valued 2015 new property construction at \$306 million, a 46 percent increase over 2013 levels (\$210 million).^{13,14}

IV. The Underserved Areas

Despite its proximity to significant communications infrastructure, and the demand created by its residents and visitors, the County lacks sufficient access to reliable and robust broadband access, both wired and wireless—with particular weakness in mobile wireless services in three major areas:

1. The Lower Blue River Valley north of Silverthorne (“Lower Blue”),
2. Montezuma, and
3. The Summit Cove neighborhood.

Collectively, these communities are referred to as the Underserved Areas throughout this RFI.

The wireless broadband ecosystem in the U.S. includes:

- Mobile network operators (MNO) such as AT&T Wireless, Sprint, T-Mobile, and Verizon Wireless;

¹² Office of the County Assessor, “Analysis of Summit County 2015 Economic Activity for 2015 Reappraisal,” <http://www.co.summit.co.us/DocumentCenter/Home/View/214>

¹³ Office of the County Assessor, “Analysis of Summit County 2015 Economic Activity for 2015 Reappraisal,” <http://www.co.summit.co.us/DocumentCenter/Home/View/214>

¹⁴ *Id.*

- Tower companies such as Crown Castle and American Tower; and
- Independent neutral host operators, which are often fiber companies involved in cellular backhaul.

The MNOs have collectively invested an average of \$25 billion per year in infrastructure in each of the past four years—but most of that amount has been invested in urban and suburban markets, not less dense markets like Summit County. The MNOs have invested to expand infrastructure for LTE-4G and are now beginning to provide additional upgrades in denser markets to include the Cloud-Radio Access Network (C-RAN) architecture that will be needed to support future 5G deployment.

Importantly, industry trends indicate that the MNOs are investing in expanding their capacity in existing service areas—not in expanding those service areas or filling in coverage gaps, such as those that exist in the three Underserved Areas of Summit County. Over the past several years the landscape has also changed as the MNOs have sold the majority of their towers to national tower companies and now are more likely to reside as tenants. If MNOs do construct new towers, it is typically to fill in coverage gaps with a single structure; they will generally turn to tower companies if they need to construct several towers in an area.

The tower operators sell space to multiple MNOs, and provide more coverage through new technologies and improved and larger antenna arrays. It also means that new monopoles (traditional larger cell towers) are being constructed less frequently, and with increased scrutiny on the return on investment.

Cellular antennas mounted on towers require line-of-sight with one another to facilitate call handoffs as a phone travels from one tower's coverage area to the next. This becomes difficult in mountainous regions (like Summit County), which further complicates carriers' site selection; towers may also need to be higher, and the equipment may need to operate at higher power.

One public safety initiative on the horizon may help to alleviate broadband issues in the Underserved Areas. The First Responder Network Authority, or FirstNet, is responsible for overseeing the buildout of the nationwide public safety broadband network (NPSBN). This network will use LTE technology to improve and enhance data and voice connectivity among local, state, regional, tribal, and federal public safety users.¹⁵ The network's excess spectrum capacity can be used for commercial services. As a result, the NPSBN, once deployed, may offer Summit County residents and visitors an alternative to the current commercial carriers' networks that provides better coverage throughout the County. It may also fund the construction of wireless sites and backhaul connections that can be used by commercial carriers in those areas,

¹⁵ More information about FirstNet and FirstNet Colorado can be found at www.firstnet.org and <https://sites.google.com/a/state.co.us/firstnetcolorado/home>

depending on the details of the eventual FirstNet design. The network, although slated to begin deployment in late 2017/early 2018, may not be available in Summit County for three to five years and if obstacles arise, may not be constructed at all.

Despite some potential for future broadband services through FirstNet, these general industry trends have led to a lack of wireless service to the Lower Blue, Montezuma, and Summit Cove.

Lower Blue

The area along Highway 9 known as the Lower Blue is a scenic area primarily populated with large ranch parcels. It has been noted by residents and County employees that cellular coverage is non-existent on any carrier (AT&T, Sprint, T-Mobile, or Verizon) from around the Everist Materials location at 28755 Hwy 9 in Silverthorne through Heeney and into Grand County. Lower Blue residents have limited access to terrestrial broadband communications and some households subscribe to HughesNet—a satellite Internet service provider (ISP). Satellite services are quite a bit slower than cellular Internet access speeds—5 to 15 Mbps for satellite, compared to about 150 Mbps for 4G LTE. This hinders any home-based businesses, students, and others from access to information that has become the norm elsewhere.

Highway 9 is a well-traveled thoroughfare between the Summit County population centers and Kremmling, and into Routt County and Steamboat Springs; an average of 10,000 to 14,000 cars per day in Silverthorne and 2,700 to 6,400 north of Silverthorne to the Grand County border. It is also the primary route from the Denver area to Steamboat Springs (a popular recreation destination for Denver residents, as well as for the many visitors who fly into the Denver International Airport).

The lack of cellular coverage in the Lower Blue is not just an inconvenience but also a public safety issue—when a public safety incident occurs in this area (e.g., accident, fire), those involved or who observe must go to a nearby residence to make a landline call or drive to a coverage area, potentially 10 to 15 miles away. The lack of coverage in the Lower Blue also presents logistical issues, such as having contractors working at a residence and not being able to communicate while on site.

According to County records, there are 529 buildings in the Lower Blue north of the Everist location. The vast majority (450) are residential or commercial buildings, with a much smaller share (73) classified as farm/ranch improvement. More development is planned in nearby areas such as Maryland Creek, which is on the fringe of the current cellular carrier coverage areas.

AT&T and the County discussed the potential for a tower in the Lower Blue area for many years; however, in 2014, AT&T cancelled its plans. At the request of Summit County Commissioner Karn Stiegelmeier, AT&T re-engaged; the company conducted engineering studies, submitted an application to the County, and received approval for a tower on private land. However, in June

2015, AT&T again cancelled its plans. According to sources within AT&T and industry knowledge, the company's business model regarding building towers changed. AT&T is getting out of the business of building/owning/maintaining tower sites and is instead leasing space on other tower owners' structures.

Verizon Wireless has indicated a willingness to internally evaluate the potential for a site in the Lower Blue. Doing so, however, is not in Verizon's current upgrade plan, and any expansion would require Verizon to amend its plans or put the expansion into a future plan.¹⁶

Neither T-Mobile nor Sprint have extensive facilities in the County outside Breckenridge and Silverthorne. T-Mobile has indicated that there are no plans for additional tower sites in the area and it is unlikely that Sprint will provide a wireless solution for the Lower Blue.

Atlas Tower also looked at the potential for building a tower on private property, but did not pursue the project. At the time, a fiber-to-the-tower solution by CenturyLink was considered for backhaul. This entailed running approximately 14 miles of fiber along the road from Highway 9 to the site.

Three landowners in the Lower Blue have offered to discuss—either with the County or directly with a carrier/tower company—the potential use of their property for a cellular carrier's site or other broadband infrastructure. These landowners have expressed a willingness to provide land and/or contributions to establish a site in the area. The landowners' willingness to collaborate on a site will facilitate the process of building a wireless network in the Lower Blue. Figure 1 illustrates that the land along Highway 9 north of Silverthorne in the Lower Blue area is primarily privately owned.

Montezuma

Montezuma is a small town, located along a dirt road. It is home to approximately 65 to 70 residents and hosts many visitors who come to recreate on the many trails and roads leading up to the Continental Divide. It is widely recognized as one of the state's most scenic places. Montezuma is a former mining camp that sits at an elevation of 10,200 feet, nestled among mountains that reach an elevation of 12,000-13,000 feet around it. It boasts a State of Colorado Historical Site and many now-defunct mines.

Montezuma has no cellular coverage "beyond the yellow sign with bullet holes" (according to locals); communications are either via landline or satellite phones. Due to the popularity of backcountry skiing, biking, snowmobiling, snowshoeing, and hiking in Montezuma, and the

¹⁶ Verizon recently received approval from the Town of Silverthorne for a new site in the Three Peaks neighborhood in the northern part of the Town; however, this site will not be high enough to provide coverage along Highway 9 in the Lower Blue.

inherent risks in these activities, the lack of reliable communications in the area present a significant safety risk. This risk is compounded because the area is heavily forested, creating the potential for wildfires in dry seasons and, unfortunately, from careless land users.

As in the Lower Blue, AT&T has stated unequivocally that it does not intend to provide coverage to Montezuma. In contrast, Verizon Wireless has expressed a willingness to consider future expansion in the town; however, again, this is not included in the company's current upgrade plan.

While some Montezuma residents are able to receive limited Internet access through HughesNet, a wireless solution would provide significantly greater benefit.

Summit Cove

Summit Cove is a relatively dense community located between Dillon and Silverthorne, tucked between Swan Mountain and West Ridge. This area also includes the Keystone Ranch Golf Course and residences.

AT&T was previously slated to construct a site on the County landfill property (across Highway 6) to provide cellular service in the Summit Cove area; the company conducted engineering studies and submitted an application to build on this site as well. Based on the AT&T coverage studies, the company anticipated that this site would have provided excellent cellular coverage in Summit Cove as well as enhanced coverage along Highway 6 and into Keystone. The plan was abandoned, however, when AT&T made a national decision to reduce new site plans across the country. Instead, AT&T shifted its focus to adding 4G capacity to existing sites, thus improving service in already served areas, rather than expanding to new regions. As a consequence, Summit Cove AT&T customers remain underserved.

Verizon Wireless recently built a 42-foot antenna structure disguised as a "hose tower" at the Lake Dillon Fire Fire-Rescue Station 12 (a space in a fire station traditionally used to dry hoses and store other equipment), providing HD Voice (voice over LTE technology) service to Verizon customers in the area. Unlike AT&T, Verizon continues to explore options for *both* improving capacity within population centers and enhancing coverage in areas like Summit Cove. While this may hold some promise, plans will ultimately be driven by usage and users.

CenturyLink provides fiber along Highway 6 and has extended its lines up Landfill Road; fiber is being provided to the landfill building(s). This fiber was also intended to provide backhaul to the abandoned AT&T site.

The area is also served by Comcast.

V. County Contributions and Assets

The County recognizes that access to broadband is necessary in Summit County to support our residents', visitors', and businesses' participation in a global economy. We are in the early stages of determining exactly what the County's role will be in promoting enhanced broadband access, and we are willing to consider various levels of public involvement.

At a minimum, the County anticipates that it will be necessary to assign a point of contact (POC) for each Partner and/or its contractor(s), and we commit to providing services to help prevent or lessen conflicts in the Partner's construction schedule. County staff will be prepared to assist the Partner(s) in navigating necessary permitting to streamline planning and construction efforts. Once we have selected our Partner(s), the County is prepared to promptly move forward with the partnership. The County will work with its Partner(s) to facilitate the smoothest possible access for construction and installation of the network.

For the selected Partner(s), the County will provide access to non-public resources that identify County infrastructure and, where available, access to existing conduit infrastructure. Such information includes but is not limited to traffic, sewer, water, and storm-drainage facilities.

Other County and private assets that may be available include:

- Existing outdoor site infrastructure in the County landfill area ("beanpole" towers, power). Despite AT&T's decision to abandon its construction plans, the landfill on Highway 6 is located on County property and would potentially provide an ideal location for a carrier site. There currently are two "beanpole" tower structures on the property with available space and power.
- Remote, "macro" site locations in Lower Blue neighborhoods
- High tower site access on the Grand/Summit County border and on the Park/Summit County border
- Site locations in the Montezuma area

The County is also open to a potential public investment if such an investment will clearly deliver wireless broadband services to the Underserved Areas. The County hopes that respondents will propose innovative models to address its goal, including those that suggest potential sharing of investment and risk as between public and private sectors. We welcome creative ideas for how the County and prospective partners can share financial and operational risks.

VI. Potential Technologies

We recognize that wireless solution options are continually increasing as the broadband industry moves toward solutions that are less intrusive to construct, and often less expensive. Some of the technologies that are available in myriad licensed and unlicensed spectrum include:

1. Cellular LTE
2. Point-to-point wireless
3. Point-to-multipoint wireless
4. Microwave middle mile/LTE last mile
5. Fiber middle mile/wireless last mile

The County encourages responses that consider these and/or other innovative solutions that enhance wireless broadband in the Underserved Areas.

VII. RFI Response Requirements

Summit County requests the following information—in as much detail as is practicable—from respondents.

1. **Cover Letter:** Please include company name, address of corporate headquarters, address of nearest local office, contact name for response, and that person's contact information (address, phone, cell, email). Keep response to one (1) page.
2. **Business Model Summary:** Summarize the business model you intend to use for the partnership. This should be a concise explanation of the key components of your business model, including but not limited to the division of network and operations responsibility and ownership. Keep response to two (2) pages.
3. **Affirmation:** Affirm that you are interested in this partnership and address the core project goals. Keep response to three (3) pages.
4. **Experience:** Provide a statement of experience discussing past performance, capabilities, and qualifications. Identify other networks your firm has designed, built, maintained, or operated; include the levels of broadband speed, availability, and adoption among different categories of end users and unique capabilities or attributes. Discuss partnerships with other service providers, government, or nonprofit entities you have undertaken, particularly any involving the provision of a wireless network. Describe the nature of the projects and your firm's role. For entities currently providing communication services in or near Summit County, describe your current service footprint in the County, including a description of the type of infrastructure and services

you currently offer and the technology platform(s) used. Explain how your firm is a suitable partner for this project. Keep response to two (2) pages.

5. **Technical and Operations:** At a high level, summarize the technological and operational approach you would use for this project.
6. **Business Structure:** Summarize the business approach you would use for the project. How would your business plan help to meet the County's goals? What are the key assumptions? What are your main areas of risk, and how can the County help reduce the risks? What are the County's main areas of risk, and how will you reduce the risk to the County? Keep response to three (3) pages.
7. **Schedule:** Describe your proposed schedule for implementing service. Offer a timeline with key milestones. Would you be able to begin service before the entire network is constructed? Are there portions of the Underserved Areas you would recommend be constructed first? Keep response to two (2) pages (one for response, one for schedule).
8. **Privacy:** Describe your ability to provide secure network service or infrastructure that complies with public safety and other security and privacy regulations and requirements. Keep response to one (1) page.
9. **Financing and Funding:** List any requirements the County must meet for you to partner with the County on this project.

Please also provide a one-page flow chart that shows the flow of funds between all parties in your response. Include all sources and uses of funds.

If you do not address this question, it will be assumed that you are interested in the partnership but have no financial requirements whatsoever of the County.

10. **Services:** Describe the service options you plan to offer over this network. Keep response to two (2) pages.
11. **Pricing:** Provide your approach to pricing the proposed services. Keep response to two (2) pages.
12. **Local Participation and Economic Development:** Provide a statement of how your proposed participation would help the County's economic development goals. Describe your interests and plans to hire local contractors and providers in the County, and how your participation would help local job creation. Describe your relationships with local businesses in the County, if any, as well as your interest and plans to engage them in this project. Keep response to three (3) pages.

13. **References:** Provide a minimum of three (3) references, including contact information, from previous contracts or partnerships. Keep response to two (2) pages.

VIII. Response Process

All correspondence regarding this RFI should be directed to:

Sarah Vaine, Assistant County Manager
(970) 668-4006
Sarah.Vaine@summitcountyco.gov

The County cannot guarantee that correspondence directed to other County staff or departments will be received or considered.

Letter of Intent

All interested respondents are asked to submit a letter of intent via email by December 2, 2016 to Sarah Vaine, Sarah.Vaine@summitcountyco.gov

Questions

Questions related to this RFI must be in writing and should be emailed to Sarah Vaine, Sarah.Vaine@summitcountyco.gov no later than 4:00 PM MT on December 9, 2016.

Response Deadline

Final RFI submissions must be received by email to no later than 4:00 PM MT on January 9, 2017. Please send to Sarah Vaine, Sarah.Vaine@summitcountyco.gov

Late responses will not be considered.

Please identify any proprietary and/or confidential information as such.

Summary of RFI Process Deadlines

The following is the schedule for responding to this RFI. The schedule is subject to change:

November 21, 2016 – RFI issued

December 2, 2016 – Deadline for submitting letter of intent to respond to RFI

December 9, 2016 – Deadline for submitting questions

December 16, 2016 – Responses to questions

January 9, 2017 – RFI responses due

Summit County thanks you in advance for your thoughtful response.

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IX. Personal Presentations

At its discretion, the County may request that vendors and other parties that provide a timely response to this RFI make an individual and personal presentation to better explain information or solutions identified in the response. These presentations, if requested by the County, shall be held at a time and place of mutual convenience.

X. County Rights Reserved

1. The County reserves the rights to accept or reject all or portions of any response(s) to the RFI, to waive any formalities of the RFI process, to re-advertise the RFI, to amend the terms of the RFI, to extend the dates provided herein, to suspend the procurement if the desired outcomes are not achieved, to award the contract to the most responsive and responsible respondent(s) as deemed in the best interest of the County, and/or to proceed to provide the services otherwise, as the County may determine in its sole discretion is in the best interest of the County.
2. No reimbursement will be made by the County for any costs incurred in responding to this RFI, developing or submitting responses to the RFI, or attendance at a site inspection, pre-bid conference or interviews.
3. The County reserves the absolute right to conduct such investigations as it deems necessary to assist in the evaluation of any response to the RFI and to establish the experience, responsibility, reliability, references, reputation, business ethics, history, qualifications and financial ability of the respondent(s), proposed subConsultants, independent Consultants and suppliers. The purpose of such investigation is to satisfy the County that the respondent has the experience, resources and commercial reputation necessary to perform the work and support any warranties in the prescribed manner and time.
4. In the event the RFI responses are considered for an award, the County reserves the right to award the Project to the firm that demonstrates the best ability to fulfill the requirements for the performing the subject services. The successful firm will be chosen based on the qualifications, evaluation of submittals and a possible interview. The County reserves the right to conduct such discussions or negotiations with Proposers or other entities as it deems necessary to assist in the evaluation of any proposal, to secure maximum clarification and completeness of any proposal, and select the proposal that best meets the requirements of the County and the public interest.